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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,084	03/07/2002	Clarence Webster Andrews III	PU3517USW	7283

23347 7590 10/23/2006

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EXAMINER

RAO, DEEPAK R

ART UNIT	PAPER NUMBER
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1624

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/070,084	ANDREWS ET AL.	
	Examiner	Art Unit	
	Deepak Rao	1624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-7,9-11,13,18-20,23,25,26,28,34-36,40,43-49,54-56 and 58-72 are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5,9,13,18-20,23,25,28,34-36,40,45-47,49, 55,58-62,65 and 71 are allowed.
- 6) ☒ Claim(s) 4,6,10,11,48,54,63,64,66-70 and 72 are rejected.
- 7) ☒ Claim(s) 7,26,43,44 and 56 are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20060811</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed on July 28, 2006.

Claims 2-7, 9-11, 13, 18-20, 23, 25-26, 28, 34-36, 40, 43-49, 54-56 and 58-72 are pending in this application.

Withdrawn Rejections/Objections:

Applicant is notified that any outstanding rejection/objection that is not expressly maintained in this office action has been withdrawn or rendered moot in view of applicant's amendments and/or remarks.

The following rejections are maintained:

Claims 4, 6, 10, 11, 48, 54, 63-64, 66-70 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wyatt et al. (J. Med. Chem. 1995). The reasons provided in the previous office action are incorporated here by reference.

Applicant's arguments have been fully considered but they were not deemed to be persuasive. Applicant first argues that 'the issue, in the cited cases *In re Hass* and *In re Henze*, was the addition of an alkyl on an existing alkyl chain and not modification of an unsubstituted aryl to a substituted aryl'. However, the reference clearly teaches benzophenone compounds (e.g., Table 1, compound 1g) having HIV reverse transcriptase activity, from which the instantly

Art Unit: 1624

claimed compounds differ by having an alkyl (e.g., a methyl) substituent on the phenyl ring attached to the carboxamido group. "When chemical compounds have 'very close' structural similarities, without more a prima facie case may be made", see *In re Wilder*, 563 F.2d 457, 195 USPQ 426 (CCPA 1977). "When such 'close' structural similarity to prior art compounds is shown, in accordance with these precedents the burden of coming forwards shifts to the applicant, and evidence affirmatively supporting unobviousness is required", *In re Grabiak*, 769 F.2d 729, 731, 226 USPQ 870, 871 (Fed. Cir. 1985). Thus, case law supports the position that a disclosed chemical compound suggests its adjacent homologs - i.e., similar compounds differing from the reference compound only by the presence or absence of a methyl substituent and therefore renders those homologs *prima facie* obvious.

As the case law cited above makes clear, where the difference between the claimed compound and reference compound is H vs. methyl or where a claimed compound is nothing more than a homolog of a prior art compound, the prior art supports a prima facie case under 35 USC 103 without any particularized showing of a suggestion to modify the prior art compound. See *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979) "An obviousness rejection based on similarity in chemical structure and function entails the motivation to one skilled in the art to make a claimed compound, in the expectation that compounds similar in structure will have similar properties". *In re Deuel*, 51 F.3d 1552, 1558, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995) "Structural relationships may provide the requisite motivation or suggestion to modify known compounds to obtain new compounds".

Applicant's argument that 'the reference teaches away' is fully considered but is not deemed to be persuasive. The discussion in page 1663 under the heading "Conclusions"

Art Unit: 1624

indicates 'the termination of the work following test result of a member of the series of compounds (8b)'. However, the compound indicated in this discussion, namely compound 8b has a different spacer group, i.e., $-\text{CH}_2\text{CO}-$ as compared to the spacer group in the compounds in Table 1 wherein the spacer group is $-\text{O}-\text{CH}_2\text{CO}-$. Therefore, the benzophenone derivatives discussed in page 1663 are different from those provided in Table 1. Applicant has not provided a direct comparison of compounds that are identical in all other features with the exception of a methyl substituent.

It is maintained that one of ordinary skill in the art would have been motivated to prepare the instantly claimed compounds that differ from the reference compounds by having a hydrogen in place of the methyl, with the reasonable expectation that such structurally analogous compounds would have similar properties and therefore, the same use as taught for the reference compounds, in the absence of a showing to the contrary.

Duplicate Claims

Applicant is advised that should claims 48 and 54 be found allowable, claims 66 and 72 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The instant claims 66 and 72 are identical to claims 48 and 54 respectively.

Art Unit: 1624

Allowable Subject Matter

Claims 2-3, 5, 9, 13, 18-20, 23, 25, 28, 34-36, 40, 45-47, 49, 55, 58-62, 65 and 71 are allowed. Claims 7, 26, 43, 44 and 56 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The references of record do not teach or fairly suggest the claimed compounds.

Receipt is acknowledged of the Information Disclosure Statement filed on August 11, 2006 and a copy is enclosed herewith.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deepak Rao whose telephone number is (571) 272-0672. The examiner can normally be reached on Tuesday-Friday from 6:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson, can be reached at (571) 272-0661. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 1624

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Deepak Rao', with a stylized flourish at the end.

Deepak Rao
Primary Examiner
Art Unit 1624

October 16, 2006